



## Press release

1 | 6

**November 6, 2023**

# Quantum Systems, Phase One, and Trimble unveil groundbreaking survey grade UAV solution with the launch of Phase One P5 camera.

Munich-based drone manufacturer elevates Trinity Pro capabilities with integration of Phase One P5 camera. The combined solution from the three technology leaders within each of their fields forms a generational leap in UAV-based mapping and surveying capabilities.

NEW CAMERA

# Phase One P5

The world's first true survey grade end-to-end UAV solution.

PHASEONE / QUANTUM SYSTEMS / Trimble

**Munich, Germany - November 6, 2023** - Quantum-Systems GmbH, the leading Munich-based innovator in dual-use drones employing state-of-the-art multi-sensor technology for governmental and commercial clients, proudly announces the next-generation instrument for the modern surveyor. The company unveils its collaboration with Phase One and Trimble to seamlessly integrate the Phase One P5 128-megapixel camera into its flagship Trinity Pro mapping drone.



# Press release

2 | 6

**November 6, 2023**

## **Challenges in the fields of architecture, construction, and engineering**

The surveying and construction industry confronts a wide range of challenges, including the critical aspects of time constraints, resource limitations, and the potential for costly fines due to project delays.

Traditional surveying methods have proven to be time-consuming, requiring extensive effort to reach the statistical confidence needed in data quality. This further intensifies the challenge of monitoring construction progress in a timely manner.

Delayed delivery of critical projects not only results in substantial financial penalties but also hampers overall industry progress. Moreover, the industry is facing a general and increasing shortage of surveyors, which significantly contributes to project delays.

Surveyors, particularly those within smaller companies, may exhibit reluctance to adopt these advancements. Many prefer to adhere to familiar methodologies and are concerned about the seamless integration of new tools into their existing workflows.

Accurate surveys play a critical role in construction projects and architectural design, whether it's during the construction phase or in the post-completion monitoring stage. However, current UAV-based surveying solutions have often fallen short in capturing survey-grade quality data, leaving a critical gap in meeting industry demands.

## **Unmatched survey-grade accuracy with the world's first true end-to-end UAV solution**

The Trinity Pro's lightweight design and extended flight capabilities enhance productivity and address the industry's surveyor shortage. With a proven track record of over 75,000 flight hours, The Trinity Pro ensures reliability and reduces maintenance requirements, allowing surveyors to focus on their core tasks.

Quantum System's Trinity Pro UAV facilitates high productivity missions with a ground speed of up to 18 m/s while maintaining safe operational altitudes ranging from 60 to 120 meters AGL, enabling the rapid surveying of large-scale areas with just a single flight.

In the realm of specialized camera systems, the Phase One P5 has been meticulously crafted to address the shortcomings of conventional cameras for UAVs in terms of speed, weight, and data quality. Purpose-built for aerial surveying via drone, the camera stands as



## Press release

3 | 6

**November 6, 2023**

the world's pioneering solution, consistently delivering the highest resolution and accuracy, along with industry-standard metrical calibration.

Designed as an end-to-end surveying instrument, the Trinity Pro and Phase One P5 solution seamlessly integrates into the Trimble Business Center (TBC) workflow, setting a new standard for engineering surveying. The modern surveyor will benefit from state-of-the-art technology to improve productivity and increase profitability.

The integration of the Phase One P5 camera into Quantum Systems' Trinity Pro UAV presents an extensive range of benefits for construction engineering customers. The Phase One P5 camera integration guarantees precision, securing survey-grade data accuracy. This exceptional level of detail and accuracy is paramount for construction projects, fostering confident decision-making while simultaneously minimizing post-processing efforts. Consequently, these features establish the joint solution as an indispensable tool for construction engineering professionals, streamlining large-scale data collection, and delivering unparalleled efficiency.

*"We are proud to introduce a pioneering solution that not only addresses the profound challenges faced by the surveying and construction industry but also sets new benchmarks for efficiency and precision. Our collaboration with Phase One and Trimble has yielded a game-changing survey-grade UAV solution. Achieving this level of quality, detail, and accuracy within a fixed-wing platform is a first in the industry. We're opening new horizons for engineering surveying professionals, and we're excited to be at the forefront of this revolutionary leap forward",* said Robert Leake, Head of Commercial Sales at Quantum Systems

### **Phase One P5**

At the heart of this transformative solution for mapping and surveying professionals, the Phase One P5 Camera stands as a symbol of the highest accuracy. It boasts an impressive 128-megapixel resolution, ensuring an extraordinary level of precision and data reliability.

*"Each Phase One P5 camera undergoes factory metric calibration and is supplied with a calibration certificate. When integrated with the Trinity Pro system, the Phase One P5 swiftly and accurately covers large survey areas, resulting in significant time and cost savings compared to traditional mapping and surveying methods",* states Michael Messerschmidt, Director Product Management Unmanned at Phase One.



# Press release

4 | 6

**November 6, 2023**

The utilization of an electronic global shutter, combined with precisely calibrated lenses and sensor, minimizes the need for extensive post-processing and software corrections typically required to address pixel distortion, thereby ensuring the preservation of high-quality data.

With the launch of the Phase One P5 camera and the complete survey-grade UAV solution, Quantum Systems, Phase One, and Trimble are opening new horizons for professionals in the field of aerial engineering surveying. This groundbreaking solution empowers surveyors to work with unmatched precision, providing data of exceptional accuracy for a wide range of applications.



# Press release

5 | 6

**November 6, 2023**

## **About Quantum Systems**

Quantum Systems specializes in the development, design, and production of small Unmanned Aerial Systems (sUAS). The company's range of electric vertical take-off and landing (eVTOL) sUAS are built to maximize range and versatility and provide operators with a seamless user experience. By integrating cutting-edge software capabilities like edge computing and real-time AI-powered data processing, Quantum Systems is building next-generation UAS for clients in defense, security, and the public sector.

Quantum-Systems is a global company, founded in 2015 and headquartered at Special Airport Oberpfaffenhofen, 20 km west of Munich, with business locations in the United States, Australia and Ukraine.

For more information about Quantum-Systems visit [www.quantum-systems.com](http://www.quantum-systems.com).

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## **About PhaseOne**

Phase One is a global leader in digital imaging technology. The company provides unrivalled imaging quality for a wide range of applications, from professional photography to heritage digitization, industrial inspections, aerial mapping, security and space.

For more than three decades, Phase One has developed core imaging technologies and a range of digital cameras and imaging modules, setting new standards for image quality in terms of resolution, dynamic range, color fidelity and geometric accuracy.

Based in Copenhagen, Denmark, and with regional offices strategically located in Denver, Cologne, Tel Aviv, Saku, Tokyo, Beijing, Shanghai, and Hong Kong, Phase One nurtures long-term relationships with customers, technology partners and its global network of



# Press release

6 | 6

**November 6, 2023**

distributors, often playing the role of digital imaging partner to customers with unique requirements. It is with this passion for service that Phase One continually exceeds expectations and drives the imaging industry forward.

We deliver Imaging Beyond Imagination.

[www.phaseone.com](http://www.phaseone.com)